

## **ENTREPRENEURSHIP AND THE MANAGEMENT OF INNOVATION IN THE GLOBAL MARKETPLACE: THE INCAT STORY.**

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### **Abstract**

In 1999, entrepreneur Bob Clifford entered the Business Review Weekly's 'Richest 200 Australians' for the first time. Clifford is the founder and Chairperson of Incat Tasmania, an internationally competitive catamaran manufacturer located in Hobart. His far sightedness as a shipbuilder, alongside his ability to manage innovation in an uncertain environment, enabled his small ferry-building business (and river-ferry operation) to become a world force in the high-speed catamarans market, exporting to Europe, Asia, and the Americas. So successful has the Incat operation been, that between 1996 and 1999 it directly employed over 1000 people and accounted for approximately 25% of Tasmania's manufacturing export earnings. Just two years later however, Incat's major creditor placed the company into temporary receivership management, citing cash-flow issues and fears that it may not be able to honour its interest payment obligations. (The receivership management was lifted in 2003, when the company was able to sell its first vessel for some three years). The following case highlights Bob Clifford's flair for ship design and construction, and management issues he faced internationalising his entrepreneurial activities.

### **Key words**

International Business  
Entrepreneurship  
Strategy

### **Biography**

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### **Introduction**

In 1999, entrepreneur Bob Clifford entered the Business Review Weekly's 'Richest 200 Australians' for the first time (Thomas, 1999). Clifford is the founder and Chairperson of Incat Tasmania, an internationally competitive catamaran manufacturer located in Hobart. His far sightedness as a shipbuilder, alongside his ability to manage innovation in an uncertain environment, enabled his small ferry-building business (and river-ferry operation) to become a world force in the high-speed catamarans market, exporting to Europe, Asia, and the Americas (Wickham & Hanson, 2002). So successful has the Incat operation been, that between 1996 and 1999 it directly employed over 1000 people and accounted for approximately 25% of Tasmania's manufacturing export earnings

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### **Bob Clifford - Entrepreneur**

Bob Clifford's flair as an entrepreneur was evident from an early age. As a 14 year old, he designed and constructed a 3.5 metre yacht. The effort, however, did not impress his teachers who failed to believe (perhaps not unreasonably) that he could have possibly built the vessel as he had claimed – all by himself, and in his bedroom. Although the yacht was presented to the teachers for their consideration, the consensus was that he must have received considerable help from his family and received a failing grade as a result (Clifford, 1998)

After Clifford finished school he worked as a fisherman in the family business. His job involved helping his father manage five crayfish and scalloping boats, which he had also helped to build. The backbreaking, and at times very dangerous scallop dredging process motivated the Clifford to re-design the operation. In particular, Clifford was worried that the 'traditional' dredging process (where three individuals placed themselves in precarious positions to empty the dredging nets), so he innovated the process by designing a 'self-tipping net'. In an effort to make this much simplified and safer dredging process a reality, Clifford constructed numerous models made from lightweight balsa wood held together by glue and pins. After several trial-and-error tests, further modifications were undertaken and a new and improved version was fitted to the Clifford family's third boat, the 14-metre 'Gazelle' (Clifford, 1998) built in 1965. As a testament to his design capabilities, scallop boats in Australia are now universally fitted with virtually the same 'self-tipping' dredging system that was developed by Bob Clifford for his 'Gazelle'.

The Clifford family business decided to expand its catchment area in late 1965, to include the 'rugged West Coast of Tasmania'. In keeping with previous efforts to 'expand their rewards through an improvement in their methods', Bob decided to design a boat specifically for the region rather than simply build 'another typical sailing craft common in Tasmania'. Unlike the eastern fishing regions, the west coast of Tasmania experiences winds that are affectionately known as "the roaring forties", a number that refers to the wind speeds in the area. To help overcome the extreme conditions, Clifford designed the new boat (named the 'Lanzig') with a reinforced hull, and an increased engine hold capable of housing a more powerful diesel engine. Expecting excellent catches from this region, Clifford also included in the design a system of "powerful bilges, capable of carrying a good load of fish a long distance" (Clifford, 1998).

Another opportunity to increase the profitability of the family business arose in 1968 when a rival fisherman's vessel was sunk on a reef on the West Coast of Tasmania. Having enjoyed entrepreneurial success previously, Clifford took advantage of the opportunity and designed and built the family's largest boat to that time: a 15-metre fishing boat called 'Leillateah'. As expected, the Leillateah provided the Clifford family business with excellent catches. The increased profit generated by the new vessel over the next four years was substantial, and enabled the Clifford family business to wind down its fishing operation in 1972 in favour of a new business venture: the design and construction of passenger ferries.

### **The Clifford Ferry Company – A Beginning**

During the early 1970's, there had been some talk of a reintroduction of a 'Trans-Derwent' ferry service across the 1600-meter wide Derwent River in Hobart to serve the city's tourist population (Clifford, 1998; Thomas, 1999). In 1972 Clifford and his father formed the Clifford Ferry Company

(Thomas, 1999). Simultaneously, he approached the Marine Construction Company (a boat building venture in the Hobart suburb of Rokeby) with preliminary design plans for his proposed 'Derwent River ferry'. Clifford was keen to have production underway immediately, and in fact, the detail of the ferry's design was 'worked out by the builder and Clifford as construction progressed'. By mid-1972, construction of Clifford's first dedicated passenger ferry, the 20-metre steel-hulled 'Matthew Brady' (named after a famous Australian bushranger) was completed. Armed with a suitable vessel to handle a ferry service across the Derwent River operations began in late in 1972 (Wickham & Hanson, 2002).

Business proved to be profitable in the early stages, with both tourists and locals taking advantage of the novel attraction. In order for Clifford to generate sales growth, he decided to build a second ferry in case the Matthew Brady was unable to sail. A second ferry was designed, commissioned, and built in 1973. Technologies had improved since the construction of the Matthew Brady, and the new ferry proved to be faster and more comfortable than the Clifford Ferry Company's mother ship. The decision to construct their second ferry proved to be a fortuitous one, given the tragic event that was to follow. On the 5th January, 1975 at 9:27 p.m., the bulk ore carrier 'Lake Illawarra' crashed into the 19th pier of the Tasman Bridge, claiming twelve lives, and severing the Eastern Shore's link with Hobart by knocking out an 80 metre section of the bridge (Clarence City Web-site, 2005). Many tens of thousands of motorists and cyclists were unable to travel easily to their required destinations, be it for work or pleasure. Bob Clifford found himself in the enviable position of 'being in the right place at the right time'.

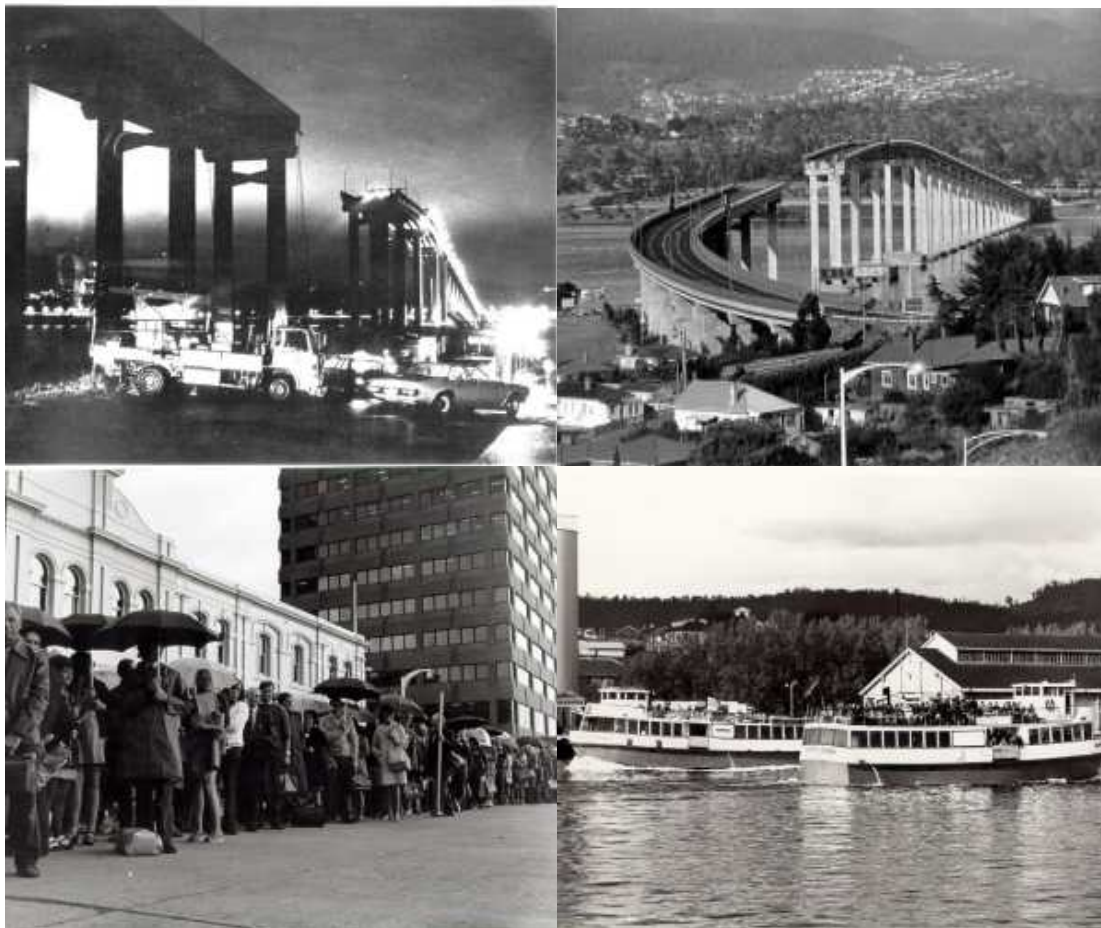


Figure 1. The Tasmanian Bridge Tragedy.

## **Transportation Returns to Van Dieman's Land**

In response to the increased demand for trans-Derwent transport, Clifford hurriedly built a third and fourth ferry (the 'Martin Cash' and 'Lawrence Kavanah') (Clifford, 1998). The four ferries served as the monopoly west-east link for some three years and transported more than nine million paying passengers across the Derwent River. In order to improve customer service and increase the business' revenues, Clifford hired a new British-built 'fast ferry', the 'Michael Howe'. The Michael Howe was twice as fast and twice as comfortable as the 'bushranger fleet' owned by the Clifford Ferry Company, and received almost instantaneous acclaim from the public. Unfortunately, the vessel was also a maintenance intensive investment, with 75 percent of all Clifford's maintenance expenditure spent on the new 'hired hand'. Clifford was understandably unimpressed with the boat's design and maintenance requirements, despite the public's obvious delight with the faster service. The flaws that Clifford observed in the boat's design and structure (i.e. the mechanics were far too complicated and labour intensive to be viable in the long-term) once again re-ignited his innovative flair: "If the English can sell 34 heaps of rubbish like this [around the world], how many properly engineered fast ships could we sell from Tasmania?" (Clifford, 1998:22). And with this marketing opportunity in his sights, the Clifford Ferry Company began its initial foray into the fast-ferry industry.

## **R. Clifford: And the Need for Speed**

The question for Clifford concerned how to develop a boat with the speed and the passenger appeal of a fast-moving vessel, yet maintain the basic economies of a conventional ferry. Clifford used a hovercraft design, but altered it to include twin-hulls. The newly designed vessel was described by naval engineering experts as 'thought provoking' and 'controversial'. The Tasmanian Maritime Authority though likewise, and refused to grant a license for the vessel to operate as a 'legal means for general public transportation'. Under legislation introduced in 1977 (see Green, Garcia, Chaple, & Davis, 2002), Bob Clifford was forced to seek the services of a qualified naval architect to endorse any new design – a time consuming and rather expensive task given that no such professional practiced in the Tasmania at the time. In order to get the required endorsement, Clifford had to travel to Sydney, New South Wales to meet a certified naval architect, Mr. Phil Hercus. The plans were checked for design flaws, and after Hercus awarded a 'clean bill of health' to the innovative design, the 'Jeremiah Ryan' was conceived and licensed with the blessing of the authorities.

The Jeremiah Ryan was built in a Tasmanian government owned 'wharf shed' at Price of Wales Bay in September 1977, and according to Clifford, could only have been described as 'ugly as sin'. Construction of the vessel was undertaken as collaboration between the Clifford Ferry Company's employees and a number of contracted 'expert' tradesmen (who were actually the maritime-industry friends of Bob Clifford's family). Although not as aesthetically pleasing as Bob Clifford may have liked, the steel catamaran was a considered a major breakthrough in ferry design, achieving 26 knots in initial speed trials, considerably more than the 18 originally hoped for in the design stage. After the success of the Jeremiah Ryan, Bob Clifford and Phil Hercus entered into a partnership to form Incat Pty Ltd of Australia, and launch the predecessor of one of Tasmania's most successful export businesses (Skotnicki, 2000).

By 1979, in an effort to reduce the weight of their boats, Bob Clifford and Phil Hercus 'did away' with the traditional steel-based catamaran designs in favour of an experiment with aluminium super-structures. The first steel-aluminium catamaran to be sold by Incat was the 'James Kelly' in June of 1979, and served to ferry passengers across Macquarie Harbour in the south of Tasmania. The project was considered 'highly important', as it was their initial foray into new shipbuilding technologies and processes, the most important of which is arguably the perfection of aluminium-based welding. The commercial success of the James Kelly soon became the talk of the Australian domestic maritime industry, and resulted in the first orders for 'all aluminium' catamarans (Clifford, 1998).



In keeping with the innovative success of the business to this point in time, Bob Clifford was keen to attempt his new 'all-aluminium' catamaran design. The lighter and more aesthetically pleasing vessel also proved to be a success for the eventual purchasers. Bob Clifford commented that with this first effort (eventually named the 'Fitzroy'): "We had overcome our fear of the unknown and built an excellent aluminium vessel at our first try" (Clifford, 1998). Bob Clifford also learnt an important marketing lesson: A fast ship must look fast. In an effort to impress Incat's potential customers, the delivery voyage was used as an opportunity to show off the tremendous speed the ferry had to offer. Positive word of mouth soon followed, as did orders from all over Australia.

A pivotal, yet unplanned marketing moment occurred on New Years Eve 1981, where the 20-metre catamaran, the "Tangalooma", was filmed cruising at full speed through two-metre seas on its way to a "year's end" party. The media coverage was extremely well received by Australian ferry operators, and resulted in further orders being placed from ferry operators around the country. When it became clear that the Hobart facility could not keep up with demand, a decision was made to increase the company's output by licensing other shipbuilders to construct catamarans to Incat's specifications. This decision would constitute Incat's initial foray into international markets (Thomas, 1999). Licenses were granted to three shipbuilding yards in New Zealand, two in the US, and one in each of the UK, China, and Singapore. Collectively, the licensing agreements resulted in the construction of 80 Incat catamarans outside of Australia's borders. With the exception of the New Zealand and Singapore contracts, each of the licensees have since prospered, a result of increasing world demand for specialised catamaran transport.

### **Changing Tack: Incat's Move from 'People' to 'People & Cargo'**

By 1984, Incat's catamarans had proved their worth by successfully servicing the islands in Queensland's north through the speedy transportation of both people and cargo. An order by the resort operators on Keppel Island, however, required Clifford to once again return to the drawing board, this time to overcome the problem that presented itself – the resort had no jetty. The result was the design and construction of the 'Keppel Cat 1' and its aptly named successor, the 'Keppel Cat 2'. These 'new cats' had the ability to 'dock on the beach' and be unloaded of passengers and cargo via specially designed ramps that did not require jetty infrastructure. Incat's reputation for designing and building innovative catamarans grew steadily throughout 1984, and by early 1985, orders for the company's range of products were coming from several international customers. 'Sealink', a British ferries company ordered two 30-metre passenger catamarans ('Our Lady Patricia' and 'Our Lady Pamela') for their Portsmouth to Ryde service across the Solent River in England. The British purchasers were impressed with the ferry's performance during the delivery stage from Belgium to Portsmouth; a journey that usually took three days was completed in just one (Clifford, 1998).

Incat's innovations also included the world's first 'wave-piercing' catamaran designs, which Clifford had first designed and built as an eight-metre model in 1983. The quality of the vessel's ride was quoted as 'unprecedented in choppy seas'. Despite the promise of the vessel's design, it took until 1986 to be perfected. On December 20, 1986 the 'Tassie Devil 2001' was launched and hurriedly fitted out on its way to Fremantle for the running of the America's Cup finals. On the delivery voyage across the Great Australian Bight, it was well noted how easily the vessel could 'surf' down the rising seas. During its time as the premier passenger vessel of the series, the 'Tassie Devil 2001' provided fast, smooth rides and an excellent standard of comfort. The 'Tassie Devil 2001' was also proven to be more economical than many of Incat's competitor's craft, and the world markets took notice.

### **Clifford and Hercus: The End of The Line**

The partnership between Clifford and Hercus lasted for eleven creative and profitable years, but finally dissolved in February 1988. The partners agreed to split the business to allow each to

“concentrate on their individual areas of expertise” (Clifford, 1998). The partnership dissolution resulted in the ‘two halves’ of the business (i.e. licensing and manufacturing) separating as individual firms - one dealing with design and catamaran manufacturing (which kept the Incat name), the other with licensing and other legal matters. The split allowed Clifford to once again focus on the design and construction of innovative new vessels, without the constraints inherent to simultaneously managing the associated licensing and legal issues. In order to modernise his ‘new’ company’s manufacturing operations and reduce costs, Clifford initiated the construction of a new catamaran manufacturing facility in 1988. Work that had already started on Incat’s latest catamaran project continued, with one of the new sheds actually built around the burgeoning vessel. In all, three new manufacturing sheds were constructed between 1988 and 1991, and would include world-first features such as a ‘catamaran dry dock’ and a dedicated catamaran assembly line (Clifford, 1998).

The new sites also incorporated a partially government funded ‘College of Aluminium Training’ from which workers could gain certification of their skills under the Technical and Further Education scheme (TAFE). This educational service also provided scholarships for staff to attend the Faculty of Engineering at the University of Tasmania, some of which resulted in Engineering Doctorates for Incat staff (Clifford, 1998). (By 1997, the training program had been so successful that a purpose-built ‘education centre’ was built near the Incat shipyards that serviced the training needs of Tasmania’s entire shipbuilding industry). The new centre employed seventeen training staff, had a 3500 square metre floor space capacity, and featured fifty welding bays able to cater for 400 apprentices and trainees (Clifford, 1998). The Incat-based training program significantly contributed to Incat’s broad skill-base by multi-skilling their workers in the two primary areas of catamaran manufacture: aluminium-welding and fabrication. Through government-subsidised training and development, Incat found itself with access to a highly skilled workforce that had practically ‘nowhere else to go’.

Clifford’s first major project for his newly formed company was the construction of what was originally to be a 66-metre catamaran for the British company Sea Containers. The design and construction of the car-carrying ferry took nearly two years to complete due to ongoing design changes (the boat would stretch to be a 74-metre vessel by its end). Sea trials for the ‘Hover Speed Great Britain’ began just before Easter in 1990. The boat, the largest built by Clifford to date, was in essence a compilation of the preceding 20 years of shipbuilding experience and innovation. Of the vessel, Clifford stated that: “In all imaginable ways the ship was a journey into the future. Never before had a ship of this size been built of aluminium. Never before had a ship carried cars at 40 knots”. So impressive was the vessel, that at first sight, the president of the company purchasing it (Mr. James Sherwood) stated that it was “easily capable of winning the Hales Trophy”. The ‘Blue Riband’ Hales Trophy is awarded to the commercial vessel that is able to complete the fastest crossing of the Atlantic Ocean, a record that in 1990 was held by the liner the ‘SS United States’. To win the trophy (a Blue Riband award), Clifford’s vessel would have to cross the Atlantic in less than three days, ten hours and 40 minutes.

The crossing attempt was a media event that generated a great deal of worldwide interest in both the Hale Trophy, and perhaps more importantly, Clifford’s business. The Hover Speed Great Britain was never in doubt to break the record and win the trophy, given that its average speed during the sea trials was in excess of that required. However, technical failures dogged the Hover Speed Great Britain’s journey, yet despite its ‘teething troubles’ managed to cross the ‘finish line’ with an average speed exceeding the previous record by 1.1 knots per hour (Clifford, 1998). The successful crossing fuelled demand for the new-breed of large cargo-carrying catamarans, and within three years, Incat filled eight orders for its AUD\$100 million-plus catamarans in the following markets:

- France - 'Hoverspeed France'.
- Denmark - 'Hoverspeed Denmark'.
- Scotland - 'Hoverspeed Scotland'.
- South America - 'Patricia Olivia' & 'Juan L'.
- New Zealand - 'Condor 10'.
- Wales and Ireland - 'Stena Sea Lynx'.
- Tasmania & Victoria - the 'SeaCat Tasmania'.

In order for Incat to maintain its profitability and growth rate, Clifford once again resorted to the design and construction of fast ferry innovations. This time Clifford was to design a catamaran with an even greater carrying capacity. The result was the construction of the first 78-metre catamaran, the 'Stena Sea Lynx 2'. This new vessel was capable of carrying 600 passengers and 150 cars. The point of difference in this catamaran was the innovative mezzanine car deck that was connected to the main vehicle deck by hydraulically operated ramps. The success of the new 78-metre vessel, once again, did not go unnoticed by the marketplace.

In 1994, Holyman sought to take advantage of the new carrier type, and contracted with Incat to build a second 78-metre vessel, the 'Condor 11'. The Condor 11's trial on the waters south of Hobart would 'go down as a significant part of Hobart's maritime history.' On October 8, a navigational error and radar malfunction led the Condor 11 to an abrupt halt upon Black Jack Rocks – a semi-submerged geological feature well known to Tasmania's sea-faring community. It took the ship a full boat length to stop, with both the stern and the portside hull clear of the water. The media attention that the incident received was testimony of the magnitude of the event. Indeed, the Condor 11 remained in the news for some six weeks, as rescue attempt after rescue attempt failed to free the ship (Dally, 1994). The incident served to reinforce the sturdy construction of the ship and the inherent safety features of the design. That a ship could withstand such maltreatment with a minimum of damage greatly impressed those in the market for passenger and cargo ferries.

### **Incat Tasmania: Expanding the Empire, and the Competition**

By 1995, the world market for 'high-speed' ferries had grown to generate sales revenues of \$1.6 billion annually (Austal Information Memorandum, 2000). Not surprisingly, a significant number of businesses had entered the 'catamaran industry' to gain a share of this revenue opportunity. In the Tasmanian context, the innovative capacity of Clifford had led to the simultaneous development of a number of his supplier firms. A natural convergence had occurred in the Tasmanian maritime industry, such that a network (or cluster) of firms operated together with Incat to construct its innovative vessels. These included Colbeck & Gunton (a producer of maritime fire protection equipment); APCO Engineering (a maritime 'cast and machined component' manufacturer); Liferaft Systems (a producer of specialised maritime safety equipment); Riley Industrial & Marine Sales (a marine hydraulics manufacturer); Richardson Devine Marine (a producer of aluminium pleasure-craft); Muir Engineering (a producer of winches and associated maritime machinery); FC Management (a mono-hull passenger ferry manufacturer); North West Bay Ships (a producer of a diverse range of aluminium passenger ferries); the Australian Maritime College; and the TAFE Aluminium Welding School (Industry Audit, 1998).

However, by this time, Clifford was also faced with direct, and intensifying competition from both domestic and international firms (e.g. Austal Limited, Sea Wind, Commercial Catamarans and Aussie Cat). Incat's most fierce competitor is Austal Limited. Austal Limited is based in the Henderson Shipbuilding District of Western Australia, and began its operations in 1988, building high quality commercial vessels for the international market. By 1995, Austal had become the world's leading manufacturer of 40-metre passenger catamarans and the dominant supplier to the Asian market (About Austal Ships, 2004). In the period after 1995, Austal Ships undertook plans to penetrate the international markets for passenger ferries, cruise yachts, fast freight and military applications (About Austal Ships, 2004). SeaWind, Commercial Catamarans and Aussie Cat have each entered specific

niche markets also trail blazed by Incat's innovations. SeaWind focuses on catamaran/yacht hybrids for the pleasure cruising market (About SeaWinds, 2004). Commercial Catamarans also produces catamarans, but specifically for the professional fishing vessel segment (About Commercial Catamarans, 2004), whilst AussieCat services the surf rescue, pleasure craft, and serious day-fisherman market (About AussieCat, 2004).

Of greatest concern to Clifford was the fact that each of his competitors were also newly internationalising firms, with access to similar resources (i.e. revenues from international markets, raw materials, and trained staff), and had likewise based their growth on the manufacture of innovative high-speed vessels. A number of Incat's competitors had also targeted the potentially lucrative Chinese market for fast-ferries, threatening Clifford's most immediate and highly prioritised internationalising strategy. It was apparent that Incat Tasmania no longer had a monopoly in the world's high-speed catamaran market, nor the innovation and expertise required for success therein. To combat the intensifying competition for the limited number of international customers, Clifford once again returned to the drawing board to design a 'new and improved catamaran' for the world's markets. The result was Incat's (and indeed the world's) first 80-metre catamaran, the 'Condor 12'. The innovative changes introduced by Clifford this time around would focus on 'passenger and crew safety', an important point of differentiation, given the spate of ferry disasters occurring in Europe at the time (Clifford, 1998).

The Condor 12 was equipped with four of the world's most advanced safety systems (known as the Marine Evacuation System [MES]). The MES ensures that the entire passenger population of the Condor 12 (some 700 people) can be evacuated in an emergency in less than 12 minutes, a time significantly less than that required by the peak international marine safety body (the International Maritime Organisation). In addition to the MES, the Condor 12 was also fitted with an advanced and lightweight fire protection designed by another innovative Tasmanian firm 'Colbeck & Gunton'. Also installed upon the vessel were single leafed hinged fire doors, single and double sliding fire doors, engine room fire-dampers, fire hatches and smoke baffles. These new features, combined with structural fire protection, formed the most advanced fire protection system available for high-speed aluminium craft. The innovative lightweight features were well received by the new owners of the boat, which in 1996 was to serve as a major transport vessel for passengers crossing the English Channel.

The success of the Condor 12 was once again evident to those in the market that provide a fast ferry service. In the period 1996 to 1998, Incat was to produce a number of 80-metre plus catamarans for the European market. As with the Incat tradition, the new catamarans became larger, with greater levels of comfort and safety, and the adoption of new and innovative technologies. During this period, Incat averaged the construction and launch of one catamaran every 10 weeks. The most notable boat of the latest generation was the Catalonia, a 91-metre wave-piercing catamaran destined for Spain. Although the Catalonia was completed over-schedule (due to the inability of the company to physically perform the tasks required given the workload), it remained very much the latest 'showpiece' of the Incat Empire. Clifford was confident that the craft was significantly more advanced than those of his competitors, and was keen to highlight his advantage with another record-breaking attempt at the Hales Trophy. With this thought in mind, as well as the implications for marketing and sales growth, Clifford decided to re-visit the Hale Trophy glory of 1990, this time using the Catalonia to secure a second 'Blue Riband vessel' for the company.

### **The Hale Trophy Defense: Blue Riband Success.**

On Saturday, June 6th, the Catalonia hauled it anchor and set sail for the United Kingdom in an attempt to set a new record for the Hales Trophy, as well as a new record for the greatest distance traveled by any ship in a given 24 hour period. Once again, the mass media were on hand to witness the feats undertaken by Clifford and his Incat team. Whilst this journey was underway, the Incat manufacturing plant was putting the completing a new 91-metre catamaran named the 'Cat-Link V'.



Built for the Scandinavian company 'Scandlines', the boat was also destined to undertake a record-breaking crossing of the Atlantic Ocean. Within weeks of the Catalonia's record-breaking run, the Cat-Link V re-wrote the record books and claimed the Hales Trophy and Blue Riband certification. What was most significant for Clifford was the fact that three Incat vessels had managed to break the speed records once held by a US vessel for 50 years, and do it in comfort.

Strong demand for Incat's wave-piercing catamarans resulted in the development of an important joint-venture agreement with Afai Ships of Hong Kong. The joint venture was important as it provided Incat with a foray into the high-potential Chinese market, as well as helping the company keep pace with the global demand for its vessels. The Chinese yard started work on its first vessel early in 1998, under the supervision of Graeme Freeman, an Incat manager. Most of the materials for the ships were supplied through the Tasmanian yard, and a constant team of Incat personnel and sub-contractors traveled to Hong Kong to supervise each stage of construction (McCaughey, Liesch, & Poulson, 2000). The joint venture proved successful, with the first ship completed by May of 1988. As with any licensing agreement, a major risk for Incat lay in the potential theft of its intellectual property, and therefore Incat's innovative catamaran designs. Perhaps indicative of the company's innovative capacity, Clifford said of the issue: "We haven't really worried too much about the theft of our intellectual property. We work on the theory that whatever our licensees are stealing, they are stealing yesterday's work anyway" (McCaughey, Liesch, & Poulson, 2000).

### **Incat: The Continued Internationalisation of a Shipbuilding Icon?**

The main issue facing Bob Clifford and his team at Incat since 2001 has been ensuring the continued growth of the company through innovation, diversification, and globalisation in the face of increasing competition and 'tough global economic times'. The history of successful marketing exercises, the constant flow of innovation throughout the organisation, and Incat's ability to foster international relationships have, at least to date, seen the company rise from obscurity to a global leader in shipbuilding excellence. Whilst there seems to be little change to the strength of global demand for high-speed vessels, cash flow problems arose in early 2001 when a number of ships built by the company remained unsold for an extended period. The amount of money tied up in the idle ships equated to a substantial cutting back in employee overtime and other 'non-essential company expenditure'.

This cutback in 'non-essential' expenditure, unfortunately for Incat's workforce, apparently extended to include a 15 percent pay-rise claim by the two major unions operating in the shipyard (the Australian Manufacturing Worker's Union and the Construction, Forestry, Mining and Energy Union). Clifford's response to the pay claim was to dismiss it entirely, stating that pay increases at Incat will only result from an increase in catamaran sales. Given the state of the company's sales at the time (see Table 1), the pay claim appeared to be doomed to failure. In response to Clifford's statement that it would be easier for the union to 'get blood from a stone' than a pay rise based merely upon a 'cost-of-living' adjustment, some 650 workers undertook industrial action in the form of a 24-hour strike. Clifford was forewarned of this imminent industrial action, and acted immediately to release a statement to this sector of his workforce that branded some as 'Donkeys with not enough brains to make their heads ache' (Haley, 2001). He continued to suggest that "as 'intelligent leaders' in tough economic times, Incat has no choice but to 'cull the donkey population' for the good of the majority, and in doing so get rid of 'The Weakest Links'" (Clifford, 2001).

Item	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Revenues	42.6	65.8	82.9	95.5	114.6	71.4	36.5	45.0	48.0	59.1
Cost of Goods Sold	29.2	43.7	51.1	60.5	77.6	56.1	29.0	30.0	28.5	40.1
Depreciation	0.1	1.2	1.2	4.1	4.4	4.9	5.1	4.7	4.5	4.1
<b>Operating Income</b>	12.3	20.9	30.6	30.9	32.6	10.4	2.4	10.3	15.0	15.9
Income Tax	7.3	12.7	21.8	18.0	21.5	9.1	1.5	7.5	2.9	6.7
<b>Net Income</b>	7.3	12.7	21.8	18.0	21.5	1.3	0.9	2.8	12.1	9.2

Table 1: Income Statement (\$AUD)

Unfortunately, the culling of employees was to no avail, with the firm's financier, the appointing a Receiver Management Team to the company in mid-2001. The receiver managers were appointed largely to control the firm's perceived expenditure issues, and to enforce the cessation of the continued construction of otherwise unwanted vessels. It was stated by representatives of the company's financier that it had no wish to dismantle the company, but rather protect its loans to the firm by taking closer control of its financial management. Again, a tragic event heralded a new period of growth for the company.

On September 11th, 2001, the financial centre of the US economy, the Twin Towers, suffered an horrific terrorist attack that destroyed the capitalist symbols, and killed approximately 3000 people. Although the economic damage resulted in a major share price slump in the short term, it also sparked a major increase in defence spending around the globe, spending that would directly benefit the struggling Incat Tasmania. It was lauded that the US government had a potential AUD\$20 billion to spend on new 'tactical response' vehicles, vehicles the service lacked for quick response to situations of armed conflict. Incat, rather fortuitously, had provided the Australian defense force with the use of a catamaran (the 'HMAS Jervis Bay') for such duties in the East Timor peacekeeping mission, and were therefore well positioned to bid for the US contract. The company managed to win a major US contract in 2002, which resulted in the finance company removing its Receiver Management Team.

The contract allowed the company to again innovate its designs to accommodate the specific needs of the US military, as well as once again license out its manufacturing processes to an overseas construction company (Clifford, 1998). The innovations of greatest note in Incat's new 'military corps' included the addition of a non-skid Helo-deck, complete with a military-approved lighting system that provides helicopter pilots with a series of visual clues that aid night-time (or poor-visibility) landings. (Incaty News, 2004). In addition to the helo-deck, Incat's new vessel design allows for a twin helicopter storage area that is equipped with 'new-to-the world' stainless-steel tie-downs that prevent damage to the aircraft in rough seas. The licensing agreements by law could not extend to any purchase of Incat-built vessels by the U.S. government, and despite the value of its military innovations, the company built no new vessels during the period 2001 to 2004, relying totally on royalties from its military contracts.

In early 2003, some 3 years since its last order for a passenger ferry, Incat was contracted to provide a 98-metre vessel for the Canadian Bay Ferries Company for its operation between the West Indian ports of Trinidad and Tobago. The vessel was named The Cat, and included a range of new passenger comfort features, such as luxurious new seating and dining furniture and viewing

platforms. Since 2000, Incat craft had been designed with the award winning retractable T-foil, positioned at the aft end of the centre bow, a system that essentially ensures a smooth ride in heavy seas (a problem with previous Incat designs).

Although the Bay Ferries Company did not purchase the vessel outright, it did provide a long-term time-chartered contract for the tourist season in the West Indies (Incat News, 2004). As if heralding a return to the halcyon days of the early 1990s, another quickly followed the order for The Cat from the Trans-Mediterranean Ferry Company (of Spain) in mid-2003 to service the Valencia-Ibiza-Palma de Mallorca tourist route. The vessel (named Milenium Dos) was similarly 98-metres in length, and is to be fitted out with the same innovations and luxurious features as The Cat. Although very preliminary, Clifford remains hopeful that these purchases may herald a long-awaited up-turn in the global demand for passenger ferries: “There are always problems to be solved that will require the design of both new and innovative products. It is coming up with ideas that is essential, and for that you need people with their brains in gear. Likewise, new markets will emerge to be served, and our team is constantly working to ‘improve the breed’. If there is one thing that I’m proud of, it is [Incat’s] ability to solve problems and expand our horizons” (Clifford, 1998).

## References

- About AussieCat. 2004. <http://www.aussiecat.com.au> January 5.
- About Austal Ships. 2004. <http://www.austal-ships.com>. January 5.
- About Commercial Catamarans. 2004. <http://www.comcat.com.au> January 5
- About SeaWinds. 2004. <http://www.seawindcats.com>. January 5.
- Austral Limited information memorandum, 2000.
- Clarence City Home Page. 2005 ‘The Tasman Bridge Disaster’. [www.ccc.tas.gov.au/clarence/about/history/bridgedisaster](http://www.ccc.tas.gov.au/clarence/about/history/bridgedisaster), 16 March.
- Clifford, C. 2001. ‘The intelligent worker’, an address to staff at Incat Tasmania. 3 April.
- Clifford, C. 1998. *Incat – The First 40 Years*. Victoria: Baird Publications.
- Dalley, S. 1994, ‘Repair work is well advanced on catamaran’. *The Mercury*.
- Green, J., Garcia, A., Chaple, S. & Davis, G. 2002. Strategic planning and planning schemes. *Government Discussion Paper Series*. Tasmanian State Government and Local Government Association of Tasmania publishers.
- Haley, M. 2001. ‘Incat’s “cull” starts with strike’. *The Mercury*. 4 April.
- Incat Web-site. 2001-2004. News. <http://www.incat.com.au/news/index.cgi>. November 5, 2004.
- McCaughey, S. L. Liesch, P. W. & Poulson, D. 2000. ‘An unconventional approach to intellectual property protection: The case of an Australian firm transferring shipbuilding technologies to China’. *Journal of World Business*. 35(1): 1–22.
- Skotnicki, T. 2000. ‘Exports: Full throttle’. *Business Review Weekly*. 18 August.
- Thomas, T. 1999. “‘Dunce’ leaves the rest in his wake’, *Business Review Weekly*. 28 May.
- Wickham, M.D. & Hanson, D.J. 2002. *Industrial clustering in regional Australia: The role of chance, entrepreneurs and government in the Tasmanian light ships industry*. Conference proceedings of the Australia and New Zealand Academy of Management Conference. Victoria, Australia.